ABSTRACT OF THE DISCLOSURE

It is an object of the invention to provide a torsional vibration suppressing apparatus further including an inertia control portion capable of suppressing a feeble vibration in a torsional vibration suppressing control portion.

The invention includes inertia control means (29) for calculating and outputting an inertia control signal T_{MJC} from an electric motor acceleration torque signal T_{MAFB} obtained by multiplying a signal acquired by differentiating an electric motor mean speed signal N_{MAVG} by an inertia time constant τ_M of the electric motor portion, electric motor acceleration torque control means (28) for calculating a torque command compensation signal T_{RFL} from a deviation signal of a signal T_{RFAX} obtained by decreasing T_{MJC} from a torque command signal T_{RFA} and the electric motor acceleration torque signal T_{MAFB}, and electric motor torque control means for controlling a current of the electric motor in order to obtain an electric motor torque in accordance with a torque command T_{RFM} to be a sum of T_{RFA} and T_{RFL}.